Remarks/Arguments

The present amendment is made in response to the Office Action dated November 11, 2006, and identified as Paper No. 110805. Claims 4, 6-8, 12-14, 18-20, and 25-27 are currently pending.

In the Action, the Examiner rejected claims , 6-8, 12-14, and 18-20 under 35 U.S.C. § 101 as directed to non-statutory subject matter.

According to the Examiner, the claimed invention is not directed toward statutory subject matter because the claimed invention merely manipulates an algorithm with no useful purpose. This position ignores the law regarding statutory subject matter and the clearly identified purpose of the claimed invention. Despite binding case law that requires that the claimed invention be considered patentable subject matter, the Examiner continues to reject the claims of the pending application.

Following is a itemized response to each of the Examiner's positions with regard to the claimed invention.

I. "The invention does not require physical acts to be performed outside the computer"

The patent laws do not require that an invention include physical acts performed outside of a computer in order to be patentable. The decision cited by the Examiner, *Diamond v. Diehr*, 450 U.S. 175 (1981), does not say anything about whether an invention must include physical acts performed outside a computer. While the claimed invention in *Diehr* included acts performed by a computer and acts performed outside the computer, the Supreme Court never even hinted that acts performed outside the computer were required for patentable subject matter. The case law actually holds otherwise, as the Federal Circuit specifically held that a method of

calculating a value for a mutual fund share that was performed entirely on a computer was patentable subject matter. *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 146 F.3d 1368, 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998).

II. "The steps of calculating a monetary value . . . does not impose independent limitations of the scope of the claims . . . because the calculated monetary values are not actual measured values of physical phenomena."

The patent laws does not require that an invention measure physical phenomena. For example, the Federal Circuit in *State Street Bank & Trust Co.*, held that an invention for calculating the value of a mutual fund share was patentable. A mutual fund share is no more or no less physical than a patent or other intellectual property asset. The cases from the 1970s that were cited by the Examiner to support his position say nothing about measuring physical or intangible phenomena and simply stand for the unremarkable position that a pure mathematical algorithm not a patentable process. These cases have nevertheless been modified by the Federal Circuit's *en banc* decision in *State Street Bank.*

The Federal Circuit *en banc* test for determining whether an invention is simply a mathematical algorithm is that "[u]npatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not 'useful' . . . to be patentable an algorithm must be applied in a 'useful' way." *State Street Bank & Trust Co.* at 1373, 47 U.S.P.Q.2d. at 1601. Whether a process relates to tangible or intangible phenomena is legally irrelevant.

III. "The claimed invention merely inputs data into the system and performs a mathematical algorithm without any limitation to a practical application as a result of the algorithm or outcome"

This statement is erroneous because the claimed invention does in fact output a result that has a practical application. As fully described in the specification, the monetary value of an

intellectual property asset is useful for many different purposes including negotiating licenses, constructing joint ventures, and calculating returns on investment. Specification at page 35. a concrete, monetary value of a patent is also critical to determining the tax implications when a patent is donated to a charitable organization. The Internal Revenue Service (IRS) of the United States has specific regulations on how use the valuation of the patent when determining taxes. *See, e.g.*, Internal Revenue, Code of Federal Regulations, 26 CFR 1.170-1. In particular, the IRS requires a taxpayer to determine:

> The fair market value of the property at the time the contribution was made, showing the method utilized in determining the fair market value. (If the valuation was determined by appraisal, a copy of the signed report of the appraiser should be submitted.)

26 CFR 1.170-1(a)(3)(ii)(c). The present invention provides a monetary value that represents the "fair market value of the property" in compliance with 26 CFR 1.170-1(a)(3)(ii)(c). The present invention also provides "the method utilized in determining the fair market value" required by 26 CFR 1.170-1(a)(3)(ii)(c). Thus, the Examiner cannot possibly argue that the claimed invention for determining the value of a patent is not "useful," since it provides two concrete facts that ***the U.S. government specifically requires for tax purposes***.

The usefulness of the claimed invention is identical to the claimed invention that was found patentable in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 146 F.3d 1368, 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998). In *State Street Bank*, the Federal Circuit held that the "spoke and hub" method of placing a monetary value on a mutual fund share was useful and therefore patentable. Following is the explanation of the invention in State Street Bank, which consisted entirely of performing mathematical algorithms:

> The system determines the percentage share that each Spoke maintains in the Hub, while taking into consideration daily changes both

> in the value of the Hub's investment securities and in the concomitant amount of each Spoke's assets.
>
> In determining daily changes, the system also allows for the allocation among the Spokes of the Hub's daily income, expenses, and net realized and unrealized gain or loss, calculating each day's total investments based on the concept of a book capital account. This enables the determination of a true asset value of each Spoke and accurate calculation of allocation ratios between or among the Spokes. The system additionally tracks all the relevant data determined on a daily basis for the Hub and each Spoke, so that aggregate year end income, expenses, and capital gain or loss can be determined for accounting and for tax purposes for the Hub and, as a result, for each publicly traded Spoke.

With regard to usefulness of the invention, the Federal Circuit stated that "Today, we hold that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result' — a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." *State Street Bank & Trust Co.*, 146 F.3d 1373. Thus, the Federal Circuit specifically held that a series of mathematical calculations performed strictly by a machine was statutory subject matter because it produced ***a discrete dollar amount that was relied upon by regulatory agencies***. This is exactly what the present invention does (calculates a discrete dollar amount) and how it is used (relied on by regulatory agencies).

The usefulness of the present invention under this requirement is indistinguishable from the invention at issue in *State Street Bank*. Both the present invention and the invention from *State Street Bank* take multiple mathematical numbers and indices, apply a variety of mathematical algorithms using a computer, and then output a ***discrete monetary value*** for an

"intangible" asset. Under the binding legal precedent of *State Street Bank*, the claimed invention for placing a discrete monetary value on an intangible asset must be patentable subject matter because the method of placing a discrete monetary value on an intangible asset in *State Street Bank* was specifically held to be patentable.

IV. Prior rejection for lack of "technological arts"

In a prior office action, the Examiner rejected the pending claims as not directed to the "technological arts." The day after Applicant filed a response cancelling the rejected claims, the Board of Patent Appeals and Interferences rejected the application of the "technological arts" doctrine. Accordingly, Applicant has amendment the present application to include claims 4, 7, and 13, which were previously indicated as allowable if rewritten to overcome the "technological arts" rejection, as new claims 25-27. In light of the decision of the Board of Patent Appeals and Interferences in *In re Lundren*, 76 USPQ2d 1385 (BPAI 2005), the "technological arts" rejection made in prior office actions was improper, the basis for the rejection of those claims no longer exists, and the those claims (added as new claims 25-27) are allowable.

In view of the foregoing amendments, the Examiner's reconsideration is requested and allowance of the present application is believed to be in order. If the Examiner believes a phone conference with Applicant's attorney would expedite prosecution of this application, please contact the undersigned at (315) 218-8515.

Respectfully submitted,

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